

METHODS AND APPARATUS FOR CONTROLLING A BRAKE SYSTEM

ABSTRACT

Methods and apparatus are provided for controlling a braking system of a vehicle that is moving toward an object. The apparatus includes a vehicle speed (VS) sensor, a steering direction (SD) sensor, at least one sensor configured to provide a distance to the object (DTO) and a processor in operable communication with the braking system and configured to receive the VS, the SD and DTO. The processor is further configured to determine a projected vehicle path (PVP) and a minimum stopping distance (MSD) for the vehicle based at least in part on the VS and the SD, determine whether the object is in the PVP and whether the DTO is less than or equal a threshold distance (TD), determine a required deceleration (RD) for the braking system to substantially reduce the vehicle speed if the object is in the PVP and the DTO is less than or equal the threshold distance (TD), and communicate the RD to the braking system.